

ITEMS

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PLANS FOR STUDIES OF AMERICA'S TRAINED TALENT

by Dael Wolfe *

AMERICA'S highly trained specialists constitute one of the country's most critically important resources. As our society becomes ever more complex it becomes increasingly necessary to know in detail the characteristics of the nation's supply of scientists, engineers, economists, linguists, and persons in a variety of other specialized fields. How many are there? What are they like? How many do we need? What is the potential supply? What will be the future requirements?

The growing interest in these questions comes partly from a fear that our increasingly technological civilization requires so many experts in so many different fields that our needs may soon outrun our supply of young men and women with the intelligence, the interest, and the motivation necessary to become scientists, engineers, doctors, or qualified specialists in other fields. One evidence of this fear is the growing number of efforts

to persuade bright students to enter particular fields. Examples are the fellowships of the Atomic Energy Commission, the scholarship and fellowship provisions of the National Science Foundation, and the fellowships and special inducements offered by the Veterans' Administration and the Public Health Service to students interested in careers in the mental health fields. The Holloway Plan was enacted by Congress in order to secure a larger number of college-trained Navy officers. If Congress approves the prospective extension of the Holloway Plan to the Army and the Air Force, the competition for the ablest college graduates will be further increased.

While some people have feared that we would not have enough trained specialists, others have feared that we would have too many. Notably, Seymour Harris, in *The Market for College Graduates*,¹ predicts a dismal and frustrating future for the thousands of college graduates of the next decade who will not, he believes, be able to find positions which require their specialized training.

In view of the evidences of growing concern over the anticipated need and the future supply of trained specialists, the Conference Board of Associated Research Councils decided that a systematic study of supply and demand was highly desirable. A grant from the Rockefeller Foundation financed an exploratory investigation of the problem in 1947. The work was done by the Office of Scientific Personnel of the National Research Council (M. H. Trytten, director) and the Social Science

* The author is Director of the Commission on Human Resources and Advanced Training established in 1949 by the Conference Board of Associated Research Councils (American Council on Education, American Council of Learned Societies, National Research Council, Social Science Research Council) to develop a continuing appraisal of existing and emergency personnel problems in fields of higher learning, to stimulate needed research, and to bring important problems and research findings to the attention of university, government, and other officials.

The present paper comprises most of the text of the Commission's Report No. 2, dated March 9, 1951. Copies of the complete report, which includes a detailed tabulation of degrees in each field of specialization, 1948-50, and three charts, may be obtained from the office of the Commission, 2101 Constitution Avenue, Washington 25, D. C.

The members of the Commission are Charles E. Odegaard (chairman), Donald Bridgman, Aaron J. Brumbaugh, C. W. de Kiewiet, E. D. Grizzell, Quinn McNemar, Ralph A. Sawyer, Frederick F. Stephan, M. H. Trytten, Paul Webbink, Ford L. Wilkinson, Jr., and Malcolm M. Willey.

¹ Seymour E. Harris, *The Market for College Graduates and Related Aspects of Education and Income* (Cambridge: Harvard University Press, 1949).

Research Center of the University of Minnesota (C. Gilbert Wrenn, principal investigator).² The results indicated that a more thorough analysis of the problems was needed and would provide information of value in planning for the more effective utilization of high-level talent. The present study was accordingly initiated in the autumn of 1950 with funds provided by the Rockefeller Foundation for a two-year period.

STUDIES TO BE CONDUCTED

The studies to be conducted can be classified under three headings:

1. Description of the present supply of persons in each field of specialization in terms of those variables which are related to being a member of that field and, whenever possible, in terms of those variables which appear to be related to success in each field;
2. Estimation of the potential supply of persons who could become qualified specialists in each field;
3. Estimation of the future needs in each field.

Most of the data relevant to these three problems will be furnished by agencies which have better resources for collecting those data than does the Commission itself. A number of universities, educational research institutions, professional societies, and government offices have already felt the need for such information, and in many cases have collected it for their own use. We know of some of these studies and have been extremely gratified by the willingness of a number of institutions to make their data available to us. But undoubtedly there are many more studies of which we have not yet learned. Also, there are probably studies described in the following list which have not been conducted. We are, therefore, distributing this statement of plans for the dual purpose of stimulating new studies and of informing a wider audience that we want to know about existing studies which bear on the problems of the Commission. By bringing together the data from a number of similar studies, we can arrive at more adequate answers to our questions than can be secured from any of the individual reports.

The staff will be glad to help in the planning of investigations which are related to its problems, and in furthering the systematic collection of relevant data already in existence or now being gathered. We hope that the following description of studies in which we are interested will lead those who have or know of relevant data to let us have that information.

² See C. Gilbert Wrenn, "Potential Research Talent in the Sciences: Based on Intelligence Quotients of Ph.D.'s," *Educational Record*, January 1949, pp. 5-22.

DESCRIPTION OF EXISTING SUPPLY

1. *Fields to be covered.* As a first approximation of the list of specialized fields to be studied, we have adopted the list used by the U. S. Office of Education in its annual reports of the numbers of baccalaureate and higher degrees conferred by American colleges and universities. As detailed data become available, the list will have to be modified in several respects:

- a. It omits all fields of specialization in which degrees are not granted, such as demography, nutrition, and military science. Fields of this character for which satisfactory data can be secured will be included in the study.
- b. Some of the fields listed are much broader than others and may profitably be subdivided in order to secure more homogeneous groups for analysis. Examples are the fields of agriculture, business and commerce, and education.
- c. Time limits on the part of the staff and unavailability of information concerning a particular group of specialists may make it impracticable to make separate studies of some of the smaller groups. Because of the ways in which data have been collected in the past, it may also be necessary to combine some of the groups which are similar in training or in occupation.

For each group it will be necessary to determine the levels, in terms of academic degrees, to be included. In general we shall study persons who are commonly thought of as members of a professional group whether admission to that status normally requires a bachelor's degree, as in engineering, a professional degree, as in law, or a graduate degree, as in mathematics.

2. *Characteristics of personnel in each field.* For each field of specialization we plan to secure information on the following variables: number of active workers in the field, historical information on the size of the group showing its rate of growth, and distribution by age, sex, highest academic degree received, geographic region, type of occupation, type of employer, quality of academic work, and intelligence test scores. Records of the professional societies and analyses of the national registers being collected for several fields will help to provide information on most of these items. University records will serve as a starting point in obtaining information on academic work and intelligence test scores.

It would also be desirable to describe each field in terms of the motivation, specialized interests, and personality characteristics of the members, for these variables are in all probability related to vocational choice and vocational success. Unfortunately, these variables

cannot yet be measured with satisfactory precision. Nevertheless, we will want to examine any studies falling in this field for the help they will give in supplementing other data concerning the specialists in each field.

An illustrative analysis of unpublished data on intelligence supplied by H. A. Toops, which has already been made, shows the distribution in terms of scores on a typical freshman psychological examination of all the graduates for 17 consecutive years who received degrees from one large midwestern university. Each distribution is based on all students receiving a particular degree. For example, 20 percent of those who received the degree of Bachelor of Science in Engineering had scored in the top 10 percent of the classes with which they entered. How well data from other universities would agree with these distributions we do not yet know. Furthermore, they show only what is, and not necessarily what is desirable. Nevertheless, they show how greatly the students who graduate in one specialized field may differ from those who graduate in another.

Similar information could be secured from any school in which the same freshman psychological examination or intelligence test (American Council on Education, Scholastic Aptitude Test, Ohio State Psychological Examination, or other nationally or locally standardized test) has been given to all entrants over the course of several years. We would be interested in securing such data, or in receiving the results of analyses similar to that just described, from a number of colleges and universities of different types, locations, and standards. We particularly need data in which the B.A. or Ph.D. degree has been broken down by field of specialization.

Analysis of the existing populations of specialists in terms of the variables listed will provide information about the kinds of people who enter a particular field and about the size of the population from which such persons can be recruited.

3. *Losses from the specialized fields.* The number of active workers in any field is a function of both the number of new people entering that field and the number leaving it for any reason. As a basis for estimating annual replacement needs for each field, it will be necessary to know the annual rate of loss. For each field, therefore, we hope to determine the annual loss resulting from death, retirement, and voluntary withdrawal, either for marriage or to enter some other type of work. One source of this information is the societies in each of the special fields.

4. *Students entering the specialized fields.* In order to secure information on new entrants into each field of specialization, we will study groups of advanced stu-

dents. In conjunction with some of the data collected on problems already described, information on the student group will indicate any changes which may be taking place in the characteristics of its members, and will also suggest probable changes in size of the group within the next few years.

In studying student groups we will attempt to eliminate the sizable number of students who major in a particular subject but who do not become members of the specialized group for which that subject is customary preparation. Undergraduate students sometimes major in a subject with no intention of making that field their life work. Other students major in fields which they will later use in a secondary fashion, for example, a college history major may expect to become a high-school teacher rather than a historian. There may also be at times a number of students who specialize in a particular field but who, because of stiff competition, are unable to find a position in that field.

ESTIMATION OF POTENTIAL SUPPLY

The second major group of studies which the Commission proposes to undertake all center around the problem of estimating the future supply of persons available for a particular specialized field and for all such fields combined. The size of the potential supply for a particular field is a function of a variety of factors: ability, training, interest, and opportunity. It is also a function of the age of the group being considered; the number of 8-year-olds who have the mental ability necessary to absorb the training required of physicists is much larger than the number of 18-year-olds who have that level of ability and who have also acquired the attitudes and training which, at age 18, are necessary in order to become a successful physicist.

1. *Intelligence.* We propose to make an analysis of the distribution of intelligence in: the total population of an age group, the portion of that population which enters high school, and the respective portions which subsequently graduate from high school, enter college, graduate from college, and earn advanced degrees. By analysis of school and college records, we hope to be able to provide better estimates than are currently available of the intelligence distributions of students who progress to different levels in high school and college. For that purpose longitudinal studies in which a grade- or high-school population has been tested and for which the records of later school progress are available are particularly valuable. One example, a study by Viola Benson,³ took advantage of the fact that 1,989

³ Viola E. Benson, "The Intelligence and Later Scholastic Success of Sixth-Grade Pupils," *School and Society*, February 7, 1942, pp. 163-167.

sixth-grade children in 64 Minneapolis schools had been given the Haggerty Intelligence Examination: Delta 2 in 1923. In 1940, through correspondence and the examination of school records, Miss Benson was able to trace the school careers of 1,680 of the original group. We have plotted the distributions of Haggerty I.Q.'s for the total 1,680 and for the subpopulations reaching successively higher and higher educational levels, and we would like to obtain more data of this kind.

2. *Academic performance.* After the age of mandatory school attendance has been passed, the selection of students continuing in school is frequently more severe in terms of previous academic achievement than it is in terms of intelligence test score. This difference is probably due to two factors: satisfactory grades are frequently an explicit selective factor in determining who shall continue in school; and good grades indicate interest in academic work as well as intellectual ability.

On the basis of unpublished data supplied by Kenneth Clark we have compared the relation between students' percentile ranks in secondary school and the probability of graduating from college with the relation between intelligence test scores and college graduation. The data are for all students entering the Arts and Science College of a large midwestern university in the fall of 1936. High school grades, in this instance, clearly predicted college graduation better than did the intelligence test scores.

3. *Social and economic determinants.* Whether a child continues in school beyond the age of required school attendance is partly a function of the economic status of the family and partly a function of the attitudes toward schooling which the student and his parents have developed. In an attempt to determine the relations between some of these social and economic factors on the one hand and the probable extent of education on the other, we propose to study the same populations for which intelligence and school records are analyzed in terms of such variables as socio-cultural status, per capita income, parental occupation, and parental education. This information together with that on intelligence and academic records will furnish descriptions of the groups continuing in school for further training and those dropping out of school at each stage. The results will give a fairly complete description of the potential supply from which specialists can be drawn.

4. *Increasing school retention of able students.* A number of studies should be made of the effectiveness of various techniques which might lead to the retention in school of a larger portion of the students who are potentially qualified for work in the specialized fields.

One such study would be an examination of the effects

of counseling with students, their parents, and their teachers concerning future vocational or professional possibilities. One of the most common reasons for not going to college is that vocational plans which do not include college training are frequently made early in a student's life. A larger percentage of the abler students might go to college and enter careers making full use of their abilities if, well before graduation from high school, each student was carefully tested and the results of the tests and their vocational implications discussed with the student and his teachers and parents. A suggestive, but by no means conclusive, bit of evidence comes from the experience of the Iowa schools. Iowa school children are periodically tested with a special set of tests measuring both achievement and ability. The results of the tests are made known to the students and to their teachers and parents. In 1946, 92 percent of the high-school graduates scoring in the top 2 percent on these tests entered college.⁴ This percentage seems to be higher than that found for comparable students in most other states. Whether the counseling was responsible cannot be said with assurance, but the possibility is one which should be followed up experimentally.

Acquainting able students earlier in their school lives with information about and advantages of specialized fields which they could enter might lead a larger fraction of them to enter college and to plan careers in these fields. The high-school curriculum gives students an acquaintance with fields such as history, English, and schoolteaching. Community life gives them an opportunity to learn about some additional fields which are not encountered in the high-school curriculum, for example, law, medicine, and engineering. But normally neither community life nor the secondary school curriculum provides an opportunity to get acquainted with other fields such as architecture, astronomy, and the social sciences. Furthermore, except on a very limited and local basis, neither the high-school curriculum nor opportunities for observation in the typical community provide very much or very good information on the income, working conditions, prestige, and other advantages or disadvantages of careers in many different fields. Deliberate efforts on the part of secondary schools to provide their students with such information might influence a larger portion of the ablest ones to choose careers in fields more fully utilizing their high qualifications.

Probably the most frequently cited single reason for the failure of good students to go to college is financial inability. Probably, also, the importance of this reason has frequently been overemphasized. Certainly, detailed studies of the high-school graduates who do and who do

⁴ Leo Phearman, Ph.D. dissertation, State University of Iowa, 1950.

not go to college indicate that financial handicaps constitute only one of several reasons for not entering; there is considerable evidence that family attitudes, early vocational choices not requiring college training, and poor scholarship in high school are important reasons why many intelligent students do not enter college. The Commission on Human Resources and Advanced Training will rely to a considerable extent on the report of the Commission on Financing Higher Education for information on this point, for the latter is making a thorough investigation of the extent to which financial handicaps limit college attendance and the probable effect which scholarship programs would have in inducing larger numbers of top-level students to enter college.

Qualitative differences among schools, at both the secondary and collegiate levels, should be examined carefully in relation to the vocational choices and later academic progress and success of their students. A few secondary schools and colleges have had outstanding success in training students who later went into a particular field. A faculty committee at Wesleyan University (Connecticut) has been studying the differences among a number of colleges and universities in an effort to determine why the number of undergraduates who later earn Ph.D.'s in science is much greater in some schools than in others. Studies of this kind, including both students who graduated and students who withdrew before graduation, might provide useful information concerning the influence which the schools themselves could exert in motivating better students to seek advanced training.

5. *Potential contributions of special groups.* Special studies should be made of groups within the total population which do not now contribute as high a percentage of their members to the specialized fields as does the population at large. It is already known that the two most important of such groups are women and Negroes. The problems presented by these two groups are different, and so are the reasons why they do not contribute trained specialists in proportion to their numbers in the total population. For women, the reasons are probably primarily the biological differences between men and women and the social roles which custom has assigned to each sex. For Negroes, the primary reasons are probably the social distinctions between Negroes and whites and the inferior educational opportunities of many Negroes. Special efforts should be made to determine how many of each group could be trained and effectively utilized in the specialized fields and the conditions most favorable to increasing their numbers.

6. *Selection on the basis of special abilities.* When people are selected for many fields of specialization on

the basis of measures of general ability, the total potential supply for all these fields is restricted to those persons who possess satisfactorily high general ability. It seems reasonable to assume, however, that work in different fields of specialization calls for somewhat different types of ability. Since the specialized abilities are not perfectly correlated with each other, the total potential supply could be increased by selecting persons for each specialty in terms of the particular abilities required for that specialty. Relatively little effort has been devoted to isolating special abilities required by different types of work. But some attempts have been made and further work of this type should be initiated both because it might increase the total potential from which specialists could be drawn and because the results might lead to better selection of persons for the individual fields of specialization.

FORECASTING FUTURE NEEDS

Less attention has been paid to forecasting future demands for highly trained specialists than to trying to measure the supply or potential supply. Forecasts can be very far wrong because changes in the economic, social, or military aspects of the nation's total situation may suddenly and drastically alter the needs. Nevertheless, we believe that forecasts of future demands should be attempted. In those cases where demands are closely related to the size of a known portion of the population, as is true, for example, of the demand for elementary and high-school teachers, forecasts can be made with comparative confidence. In other cases forecasts can be attempted by using the number now actually employed and the current trends in employment as a first approximation of the demand. This approximation can then be adjusted in terms of such factors as the number of unfilled positions or unemployed persons, the number of positions filled by substandard personnel, the relation between income for work in a particular field and income for work in other fields similar in educational requirements, prestige, and other relevant variables. The forecasts must also be adjusted in terms of the best information available on new developments, technological trends, changing social customs, deliberate attempts by the specialized group to change its function in society, its training requirements, or its financial rewards, and by any other quantitative or qualitative information which bears upon the probable future need or demand.

In forecasting demands it will also be necessary to pay careful attention to the interrelations of predicted demands. If, for example, the demand for engineers is expected to increase, there will be efforts to increase the

supply. But the supply cannot be increased without also increasing the demand for mathematicians, physicists, and others who help to train engineers.

REPORT OF THE COMMISSION'S STUDIES

Data collected in the studies outlined above and the implications of those data for educational planning and for the formulation of policies affecting the utilization of trained specialists will be summarized in a report to be issued by the Commission. It should be obvious that that report will not be able to give highly precise figures

on the supply which will be available at some future date or on the exact future demands for any type of specialist. We believe from preliminary study, however, that it will be possible to make useful estimates of trends in supply and demand, of the relative orders of magnitude of supply and demand, and of the size of the potential supply not now being utilized. The completeness and the accuracy of those estimates will depend largely upon the extent to which we secure data and cooperation from others who have information on the supply of or on the demand for America's top-level talent.

INTERUNIVERSITY SUMMER RESEARCH SEMINARS, 1951

FOUR interuniversity summer research seminars will be held during July and August 1951, under the three-year program initiated by the Council in the summer of 1950 with funds provided by the John and Mary R. Markle Foundation. The seminars are designed to aid outstanding social science research workers in the 30- to 40-year age group who might otherwise be financially unable to pursue their research interests during the summer vacation period. Proposals for seminars to be held under this program are not judged solely on the basis of the importance of the topic for research planning and appraisal. Primary consideration is given to identifying a particular group whose intellectual development and competence in research will assure optimum use of two months of intensive work on a problem of common scientific concern.

LINGUISTICS AND PSYCHOLOGY

An eight-weeks seminar on linguistics and psychology will be held, at an as yet undetermined location, under the chairmanship of John B. Carroll of the Graduate School of Education, Harvard University. Mr. Carroll has described the seminar as follows:

"The purpose of the seminar is to explore interdisciplinary problems existing between linguistic science and psychology. It is hoped that the seminar may serve to establish firmer ties between these disciplines than have existed up to the present time. The working group will be composed of three linguistic scientists and three psychologists. The linguistic scientists include Stanley S. Newman, Department of Anthropology, University of New Mexico; Thomas A. Sebeok, Department of Linguistics, Indiana University; and Frederick B. Agard, Division of Modern Languages, Cornell University. The psychologists include, in addition to the chairman,

Richard L. Solomon, Department of Social Relations, Harvard University; and Charles E. Osgood, Department of Psychology, University of Illinois. The group may also call in a number of consultants on special problems.

"In order to plan concretely for the summer's work, a preliminary meeting of the group is being held in White Plains, New York, on March 23-24. One reason for this meeting is that the members of the seminar, being drawn from two professional groups, are in general acquainted only with those other members who are in their own group. Even more cogent is the fact that considerable preparation on the part of the individual members is thought to be desirable to insure the success of this interdisciplinary seminar. At this preliminary meeting the members will have an opportunity to advise one another as to suitable sources for individual study and preparation.

"The seminar will attempt to identify interdisciplinary problems, to indicate the lines along which research on these problems might be pursued profitably, and if possible, to plan or even to initiate detailed studies of several of these problems in order to discover further methodological and theoretical questions. Among some of the problems which will probably be discussed are: critical evaluation of the major psychological theories of language; comparative study of methodology in linguistics and in psychology; the implications of psychological learning theory for language learning; the study of language learning in the child; the role of language structure as a determining factor in perception and thought; applications of linguistics in the study of personality; the psychological analysis of linguistic structure; and the role of language in social behavior (for example, in connection with the role of dialect as a criterion of social class).

"The procedure of the seminar will emphasize free, informal discussions among all members of the group as a means of achieving a 'meeting of minds.' At least two or three weeks at the beginning of the summer will undoubtedly be needed for clearing the ground and arriving at a suitable frame of reference for further discussion. The group does not plan to work toward the production of a major document reporting the results of the summer's work, but the members hope that at the end of the summer they will individually be in a better position to engage in fruitful research on psychological problems of language."

MATHEMATICAL MODELS FOR BEHAVIOR THEORY

Under the chairmanship of Frederick Mosteller of the Department of Social Relations, Harvard University, a seminar on mathematical models for behavior theory will be held at Tufts College. In addition to the chairman the working group will consist of Cletus J. Burke and William K. Estes of the Department of Psychology, Indiana University; Robert R. Bush, who holds a natural science-social science fellowship under the joint program formerly sponsored by the National Research Council and the Social Science Research Council; George A. Miller of the Department of Psychology, Harvard University; and David Zeaman of the Department of Psychology, University of Connecticut.

The seminar has been organized to give a group of persons who have been actively developing mathematical models for behavior theory, but who would otherwise be unable to meet, opportunity for joint work, mutual criticism, and group discussion. Developmental work on specific models which participants consider promising will be their major task. Thus during most of the seminar period the participants will be engaged in actual research; discussion of how mathematical models can or should be built will be subordinate.

Two considerations make it particularly appropriate to hold this seminar at the present time: first, there are a great many verbally stated theories in the field of behavior; and second, there is a large body of experimental data on the psychology of many kinds of behavior. These provide the necessary background for model building in this field. There is also particular need for stimulating further work on a mathematical theory of behavior. Many pertinent articles were published in the decades from 1920 to 1940. Since 1940 relatively less work appears to have been done, presumably because competent persons were drawn into testing or other more immediately practical fields as a result of wartime influences.

It is expected that a number of independent and joint original research papers will be produced by members of the seminar. Work already in progress will be critically reviewed and revised.

POLITICAL BEHAVIOR RESEARCH

Under the auspices of the Council's Committee on Political Behavior a summer seminar composed of political scientists and political sociologists will be conducted at the University of Chicago beginning June 18, under the chairmanship of Avery Leiserson. He has outlined the following plan for the seminar:

"The group will review and appraise the major conceptual models presently employed in political research. A series of papers will be presented by the seminar members utilizing the concept of group interaction as a practical research design. The papers will cover such aspects of the political process as the theoretical problem of group representation and responsibility, the operational uses of the term 'group' in social science research, the influence of group affiliations upon political participation or nonparticipation, the group processes underlying political leadership, the internal structure of organized groups conditioning their relations with other groups and efforts to influence public opinion, the theory and practice of governmental 'clientelism,' and the functional roles of political parties in coordinating the groupist elements of social and governmental structure. It is hoped that the outcome of the seminar will be a publishable volume of papers contributing towards a systematic evaluation of the 'group process' concept in analyzing the symbolic and organizational elements of political behavior.

"Prospective participants in the seminar, in addition to the chairman, include Dayton D. McKean, Dartmouth College; Oliver Garceau, Bennington College; David B. Truman, Williams College; Alexander Heard, University of North Carolina; Samuel J. Eldersveld, University of Michigan; Robert T. Bower, American University; Samuel Huntington, Harvard University; Morris Janowitz, University of Chicago; and Frederick C. Irion, University of New Mexico."

STATUS AND STRATIFICATION

Melvin Seeman of the Department of Sociology, Ohio State University, has been coordinating plans for a seminar on status and stratification, which he has described as follows:

"A seminar group of six, representing the fields of anthropology, sociology, and psychology, will meet at Ohio State University this summer from June 15 to

August 15, to examine the present position of theory and research in status and stratification. The seminar members include Wilfrid Bailey, University of Texas; Nelson Foote, Cornell University; Paul K. Hatt, Northwestern University; Robert Hess, University of Chicago; Richard T. Morris, University of Wisconsin; and the coordinator. Each of the members has been involved in both teaching and research capacities in work for which the concept of status is central (e.g., such varied concerns as occupational stratification, leadership, and 'culture fair' intelligence testing).

"Under the present seminar plan we will devote the first four weeks to a systematic study of theory and method as they presently exist in the field. This would be approached from two directions: (1) a careful consideration of the assumptions underlying the empirical studies which have appeared in recent years (e.g., those by Lloyd Warner and by Richard Centers); and (2) an analysis of the theoretical systems which have been developed for the interpretation of social class and status phenomena. The goal of this first part of the seminar

is the development of a systematic framework within which the major theories and techniques could be fitted, providing a frame of reference for evaluating various substantive studies and for formulating questions concerning needed research in the area.

"The second four weeks of the seminar will be devoted to the specific problems for which the concept of status is presumably important. The aim here is to collate and critically evaluate, in terms of the paradigm developed in the first four weeks, the empirical work which has been done in the following subject fields: (1) stratification in the mass society; (2) stratification in the local community; (3) status and personality; (4) leadership and influence; (5) status systems and the political-economic order; (6) status in small groups. The personnel of the seminar has been selected so that the special interests and experience of the members are related to these six substantive problem areas. It is hoped that these critical evaluations, and the more general paradigm which guides them, will be one of the published products of the seminar."

COMMITTEE BRIEFS

CENSUS MONOGRAPHS

Ralph G. Hurlin (chairman), Robert W. Burgess, J. Fred-eric Dewhurst, William F. Ogburn; *staff*, Eleanor Bernert.

At a meeting on March 7 the committee and invited guests from the Bureau of the Census discussed the substance and form of the final report and recommendations of the committee. These will be submitted to the Bureau shortly after April 1.

ECONOMIC GROWTH

Simon Kuznets (chairman), Shepard B. Clough, Edgar M. Hoover, Wilbert E. Moore, Morris E. Opler, Joseph J. Spengler.

The conference on the quantitative description of technological change, organized by the Committee on Economic Growth jointly with the Committee on Social Implications of Atomic Energy and Technological Change, will be held at the Firestone Library at Princeton University on April 6-8. About sixty persons have been invited to participate in the discussion of twelve major papers prepared for the conference.

At meetings in December and February the committee made preliminary plans for a further research conference to consider problems relating to the industrialization of three countries: India, Japan, and Brazil. With the aid of subcommittees for each of the three countries the committee hopes to stimulate the preparation of papers contributing significantly to analysis of the problems of and obstacles to the industrialization of economically underdeveloped areas.

HOUSING RESEARCH

Ernest M. Fisher (chairman), Charles S. Ascher, Jacob H. Beuscher, Howard G. Brunsmann, Nicholas J. Demerath, Robert K. Merton, Robert B. Mitchell, Richard U. Ratcliff, Arthur M. Weimer, Coleman Woodbury; *staff*, Leo Grebler.

Preparations have been completed for a research conference on the role of social science research in housing design to be held at Ann Arbor, Michigan, on May 24-26, 1951. Papers on social relations in the design of housing will be presented by John P. Dean, Department of Sociology and Anthropology, Cornell University, and Robert Woods Kennedy, School of Architecture and Planning, Massachusetts Institute of Technology; and on changing patterns of family behavior and the design of nonhousing facilities, by William F. Ogburn, Department of Sociology, University of Chicago, and Carl Feiss, Community Planning and Development Branch, U. S. Housing and Home Finance Agency. Participation will be limited to a small group of social scientists and designer-practitioners. In addition, Donald Young, General Director of the Russell Sage Foundation, will address the conference and invited faculty and student groups of the University of Michigan on "The Application of Social Research to Practice."

The committee's recommendations for analytical cross-tabulations and monographs dealing with the 1950 census of housing were transmitted to the Bureau of the Census in execution of a contract with the Bureau reported in previous issues of *Items*.

L.G.

INTERNATIONAL COOPERATION

AMONG SOCIAL SCIENTISTS

Roy F. Nichols (chairman), Robert C. Angell, Frederick S. Dunn, Robert B. Hall, Otto Klineberg, Donald Young; *staff*, Bryce Wood.

At a meeting in New York on March 9 the committee discussed the evaluation of programs for international exchange of persons in terms of the examination of administrative techniques, and study of the effect of the programs upon the attitudes of the participants. Consideration was also given to certain social science aspects of international cooperation related to the work of UNESCO.

INTERNATIONAL EXCHANGE OF PERSONS

(Appointed by the Conference Board of Associated Research Councils)

M. H. Trytten (chairman), Marland P. Billings, Francis J. Brown, Aaron J. Brumbaugh, Harold C. Deutsch, Mortimer Graves, Herbert J. Herring, Sidney Painter, William R. Parker, C. F. Voegelin, Paul Weiss, Bryce Wood; *staff*, Gordon T. Bowles, executive secretary; Francis A. Young.

Applications for awards for university teaching and advanced research for the academic year 1952-53 under the Fulbright programs for Australia, New Zealand, Philippines, Burma, Thailand, India, and Pakistan are now being accepted by the committee.

The opening of a spring competition for countries in the Pacific and East Asia areas places the Fulbright program on a two phase, or two cycle, basis. The new schedule has been authorized by the Department of State and the Board of Foreign Scholarships and affects all countries in which the academic year begins during March, April, May, June, or July. Competition for awards in countries in which the academic year begins in the fall, notably countries in Western Europe and the Near East, will be conducted as formerly during the period from June 15 to October 15.

The purpose of holding a spring competition for countries in the Pacific and East Asia areas is to complete the selection and notification of applicants in ample time for the successful candidates to make the necessary arrangements to take up their awards at the beginning of the academic year in the host countries. Under the old schedule grantees usually arrived from one to four months late.

Approximately 70 awards for university teaching and research are included in the 1952-53 programs for Australia, New Zealand, Philippines, Burma, Thailand, India, and Pakistan. Many of the awards are available to specialists in the social sciences. The Philippine program, for example, includes awards for two economists, a specialist in economic geography, and two sociologists. Applications must be postmarked not later than April 15, 1951 to insure consideration.

Awards are ordinarily made for one academic year, although in exceptional cases applications will be considered for periods of not less than six months. Awards for teaching or research usually include round-trip transportation for the grantee, a maintenance allowance, including certain allowances for dependents, and a small supplemental allowance for travel and equipment purchasable abroad, if necessary.

The grants are made in the currency of the country to which the grantee is going and are not convertible into dollars.

Grantees in the lecturing category are subject to federal income tax on the proceeds of the award. It is hoped, however, that small supplemental grants in dollars will be made available from Smith-Mundt Act appropriations to assist visiting lecturers in meeting their dollar requirements.

Eligibility requirements include United States citizenship. Applicants in the category of visiting lecturers should have teaching experience in an institution of higher learning in the United States. Applicants for research are expected to have the doctoral degree or equivalent professional standing. Requests for detailed information and application forms should be addressed to the Executive Secretary, Committee on International Exchange of Persons, 2101 Constitution Avenue, Washington 25, D. C. F.A.Y.

LABOR MARKET RESEARCH

Dale Yoder (chairman), E. Wight Bakke, J. Douglas Brown, Philip M. Hauser, Clark Kerr, Charles A. Myers, Gladys L. Palmer, Carroll L. Shartle.

A conference on the design of research pertaining to industrial relations problems, sponsored jointly by the committee and the University of Minnesota, will be held in Minneapolis on June 11-12. Special attention will be given to problems relating to studies of leadership and to studies of conflict and cooperation.

MIGRATION DIFFERENTIALS

Dorothy S. Thomas (chairman), Donald J. Bogue, C. Horace Hamilton, Edward P. Hutchinson, Henry S. Shryock, Jr.

At the committee's first meeting, held on February 24-25 in Washington, D. C., Everett S. Lee presented his tentative outline for the revision of Council Bulletin 43, *Research Memorandum on Migration Differentials*. This outline was discussed in detail and approved with certain modifications, taking particular account of the economic framework within which internal migration takes place. A bibliography and a preliminary draft of parts of the bulletin are scheduled for submission to the committee by August 1, for critical comment. The committee also undertook responsibility for preparation of an outline for a census monograph on internal migration in the United States, at the request of the Committee on Census Monographs.

NEAR AND MIDDLE EAST

George G. Cameron (chairman), Robert B. Hall (acting chairman), Carleton S. Coon, Douglas D. Crary, Peter G. Franck, Richard N. Frye, J. C. Hurewitz, E. A. Speiser, Afif I. Tannous; *staff*, Bryce Wood.

This committee was appointed in January, upon the recommendation of the Committee on World Area Research, to plan research focused on promotion of clearer understanding of the contemporary Near and Middle East and to encourage development of relevant social science ma-

terials and trained personnel. At a first meeting held in New York on February 7, both procedural and substantive aspects of the committee's work were discussed.

PACIFIC COAST COMMITTEE

ON SOCIAL STATISTICS

George M. Kuznets (chairman), Maurice I. Gershenson, Emily Huntington, Davis McEntire, Calvin F. Schmid, Jacob Yerushalmy.

During the fall semester two meetings on statistical techniques were held by the committee. The attendance at each of the meetings was about twenty persons, representing various departments of the University—among them, Public Health, Business Administration, and the Statistical Laboratory—and several outside agencies, such as the State Department of Public Health and Stanford University Medical School. The first meeting was held on December 4 and dealt with statistical problems arising in comparisons of mortality experience of different groups. Jacob Yerushalmy of the University of California School of Public Health presented a critique of present methods and proposed a new mortality index. His paper was discussed formally by Jerzy Neyman, Director of the Statistical Laboratory, and Dean Edward S. Rogers. The discussion at the second meeting, held on February 6, centered on the use of probabilistic models. Mr. Neyman discussed a specific application of this approach in the field of public health. H.E.J.

POLITICAL BEHAVIOR

V. O. Key (chairman), Angus Campbell, Alfred de Grazia, Oliver Garceau, Avery Leiserson, M. Brewster Smith, David B. Truman.

Since the resumption of its activities after the summer the committee has held three meetings. It has continued to work toward its objective of developing a framework for the analysis of political behavior that would incorporate and utilize the concepts or techniques of social psychology, sociology, and other disciplines bordering political science. At its sessions on October 28–29, the committee discussed a memorandum prepared by Oliver Garceau on the basis of a survey of research under way in the various social science disciplines and on the basis of earlier committee discussions. This statement, which represents the author's individual views, constitutes a first formulation of a framework for political behavior analysis. It will be published under the title "Research in the Political Process" in an early issue of the *American Political Science Review*.

The committee devoted its sessions on December 2–3 chiefly to consideration of plans for a summer seminar in political behavior research to be led by Avery Leiserson at the University of Chicago. The arrangements for the seminar are outlined elsewhere in this issue (page 7). At its meeting on February 10–11 the committee resumed its discussions with men engaged in work relevant to the interests of the committee. Paul F. Lazarsfeld, Bernard Berelson, Robin M. Williams, Jr., and John P. Dean participated in

a consideration of the problems of collection, analysis, and interpretation of the data of the several studies now coming to a close in Elmira, New York. These were examined in terms of their contributions to an understanding of the political process, the relation of the findings to normative democratic theory, the relations between the quantified results of panel surveys and the patterns of activity observed in field studies of intergroup relations. On March 10–11 the committee considered the applicability of its general notions to historical research, and the perspectives to be derived from political history, in a discussion with Roy F. Nichols. It also reviewed some preliminary suggestions for improvement of the collection and use of political statistics, outlined by David B. Truman. V.O.K.

PSYCHIATRY AND SOCIAL SCIENCE RESEARCH

Alexander Leighton (chairman), John A. Clausen, Joseph W. Eaton, Herbert Goldhamer, Ernest M. Gruenberg, Clyde Kluckhohn, Thomas A. C. Rennie.

The committee was appointed in December to consider means of stimulating research on problems of mental health related to social environment. Discussion at its first meeting, held in New York on February 16, was particularly concerned with the need for comprehensive annotated bibliographies in the field; for improvement of the adequacy and accessibility of case records having potential value as research data; and for the promotion of interdisciplinary research on problems of social psychiatry.

SOUTHERN ASIA

(Joint with the American Council of Learned Societies)

W. Norman Brown (chairman), Kingsley Davis, Franklin Edgerton, Holden Furber, David G. Mandelbaum, Horace I. Poleman, Lauriston Sharp; secretary, Alice Thorner.

The committee suffered a great loss with the death on December 22, 1950, of one of its members, John F. Embree, Research Associate in Anthropology and Director of Southeast Asia Studies, Yale University. Through his teaching, research, governmental service, and leadership in learned societies, John Embree worked constantly to enlarge American understanding of the peoples and cultures of Asia. In the committee's work he had contributed particularly in presenting the problems of Southeast Asia and in formulating methods for attacking them.

A meeting of the committee on February 10, in Philadelphia, was devoted to consideration of the second draft of a Survey and Plan for Southern Asia Studies in the United States. The need for Southern Asia studies, an analysis of the available resources in personnel, instruction, library and museum collections, publication and field work facilities, and a blueprint for the future development of studies in this field are included in the survey. A basis was laid for a third and final draft which will be published and distributed in the spring of 1951.

The committee continues to serve as a clearing house for information on Southern Asia studies. Three issues of a

bulletin containing such information have been distributed, in June and December, 1950, and in February, 1951. A.T.

W. I. THOMAS' CONTRIBUTIONS

TO SOCIAL SCIENCE

Donald Young (chairman), Herbert Blumer, Thorsten Sellin, Dorothy S. Thomas; *staff*, Edmund H. Volkart.

In January Mr. Volkart completed the manuscript of a volume of selections from W. I. Thomas' books and other works—chosen to represent his outstanding contributions to the study of social behavior and personality. The collection is introduced by an analytical essay on W. I. Thomas' place in the development of sociology and social psychology, and interpretative annotations precede the individual selections. The volume is scheduled for publication by the Council in the late spring.

WORLD AREA RESEARCH

Robert B. Hall (chairman), Ralph L. Beals, Wendell C. Bennett, W. Norman Brown, Donald C. McKay, Geroid T. Robinson, George E. Taylor; *staff*, Bryce Wood.

The committee held meetings in Washington on October 6-7 and January 12-13 and also sponsored a small conference on Near and Middle Eastern studies on January 11. At the sessions on January 12-13 the committee discussed a proposal for the training of a group of area specialists, prepared by Wendell C. Bennett, who subsequently revised his plan on the basis of suggestions made by the committee. Implementation of this plan would provide for the estimated needs of various government agencies for personnel with area training on a high level; and possible ways of financing the proposed programs at university training centers are being canvassed.

PERSONNEL

DIRECTORS OF THE COUNCIL

The seven national social science organizations associated with the Council have designated the following persons to serve as directors of the Council for the three-year term 1951-53:

Wendell C. Bennett, Yale University, by the American Anthropological Association

Theodore W. Schultz, University of Chicago, by the American Economic Association

Roy F. Nichols, University of Pennsylvania, by the American Historical Association

Charles Fairman, Stanford University, by the American Political Science Association

Robert R. Sears, Harvard University, by the American Psychological Association

Lowry Nelson, University of Minnesota, by the American Sociological Society

S. S. Wilks, Princeton University, by the American Statistical Association.

The American Anthropological Association has also designated Fred Eggan of the University of Chicago to fill the vacancy on the board of directors caused by the resignation of Clyde Kluckhohn, whose term would have expired at the end of 1951. The credentials of the eight appointees are scheduled for acceptance by the board of directors of the Council at its spring meeting in New York on March 31-April 1, 1951.

APPOINTMENTS TO COUNCIL COMMITTEES

A new Committee on Scaling Theory and Methods, consisting of Harold Gulliksen of Princeton University (chairman), Paul Horst of the University of Washington, J. E. Karlin of the Bell Telephone Laboratories, Paul F. Lazarsfeld of Columbia University, Henry Margenau of Yale Uni-

versity, Frederick Mosteller of Harvard University, and John Volkmann of Mt. Holyoke College, has been established to make plans for further basic research in this field.

James L. Morrill, President of the University of Minnesota, has been designated by the American Council on Education as a member of the Conference Board of Associated Research Councils, succeeding Aaron J. Brumbaugh.

E. D. Grizzell, Dean of the School of Education, University of Pennsylvania, and Ford L. Wilkinson, Jr., President of Rose Polytechnic Institute, have been newly appointed by the Conference Board of Associated Research Councils, as members of the Commission on Human Resources and Advanced Training.

The membership of the Committee on Organization for Research has been reconstituted to consist of Louis Wirth of the University of Chicago (chairman), Gordon W. Blackwell of the University of North Carolina, John G. Darley of the University of Minnesota, Willard Hurst of the University of Wisconsin, Richard A. Lester of Princeton University, and Stanley F. Teele of Harvard University.

Erich Lindemann of the Massachusetts General Hospital has resigned from the Committee on Psychiatry and Social Science Research.

COUNCIL STAFF

Leonard S. Cottrell, Jr., Dean of the College of Arts and Sciences, Cornell University, has been giving half time to the Council since March 1, serving as staff particularly concerned with activities made possible by the grant to the Council from the Ford Foundation. On July 1 Mr. Cottrell will move from Cornell University to the staff of Russell Sage Foundation, and it is by arrangement with that Foundation that the Council is able to have his services. Mr. Cottrell has been a member of the board of directors of the Council since 1943 and chairman of its Committee on Problems and Policy since September 1949.

PUBLICATIONS

SSRC BULLETINS AND MONOGRAPHS

- Support for Independent Scholarship and Research* by Elbridge Sibley. Report of an inquiry jointly sponsored by the American Philosophical Society and the Social Science Research Council. May 1951. About 130 pp. \$1.25.
- Area Research: Theory and Practice*, Bulletin 63, by Julian H. Steward. August 1950. 183 pp. \$1.50.
- Culture Conflict and Crime*, Bulletin 41, by Thorsten Sellin. 1938; reprinted September 1950. 116 pp. \$1.00. This bulletin was reprinted at the suggestion of a group of teachers and research workers in the field of criminology, following repeated requests for copies while it was out of print.
- Tensions Affecting International Understanding: A Survey of Research*, Bulletin 62, by Otto Klineberg. May 1950. 238 pp. Paper, \$1.75; cloth, \$2.25.
- Production of New Housing: A Research Monograph on Efficiency in Production* by Leo Grebler. February 1950. 195 pp. \$1.75.
- Labor-Management Relations: A Research Planning Memorandum*, Bulletin 61, by John G. Turnbull. October 1949. 121 pp. \$1.25.
- The Pre-election Polls of 1948: Report to the Committee on Analysis of Pre-election Polls and Forecasts*, Bulletin 60, by Frederick Mosteller, Herbert Hyman, Philip J. McCarthy, Eli S. Marks, David B. Truman, with the collaboration of L. W. Doob, Duncan MacRae, Jr., F. F. Stephan, S. A. Stouffer, S. S. Wilks. September 1949. 416 pp. Paper, \$2.50; cloth, \$3.00.

The Council's bulletins, monographs, and pamphlets are distributed from the New York office of the Council.

BOOKS

- Economic Aspects of Atomic Power: An Exploratory Study* under the direction of Sam H. Schurr and Jacob Marschak. Prepared by the Cowles Commission for Research in Economics; initiated by the Council's former Committee on Social Aspects of Atomic Energy. Princeton: Princeton University Press, 1950. 315 pp. \$6.00.

- Studies in Social Psychology in World War II*, Vol. I, *The American Soldier: Adjustment During Army Life* by S. A. Stouffer, E. A. Suchman, L. C. DeVinney, S. A. Star, and R. M. Williams, Jr.; Vol. II, *The American Soldier: Combat and Its Aftermath* by S. A. Stouffer, A. A. Lumsdaine, M. H. Lumsdaine, R. M. Williams, Jr., M. B. Smith, I. L. Janis, S. A. Star, and L. S. Cottrell, Jr.; Vol. III, *Experiments on Mass Communication* by C. I. Hovland, A. A. Lumsdaine, and F. D. Sheffield; Vol. IV, *Measurement and Prediction* by S. A. Stouffer, Louis Guttman, E. A. Suchman, P. F. Lazarsfeld, S. A. Star, and J. A. Clausen. Prepared under the auspices of the Committee on Analysis of Experience of Research Branch, Information and Education Division, ASF. Princeton: Princeton University Press, 1949. Vol. I, 612 pp.; Vol. II, 676 pp.; together, \$13.50; separately, \$7.50. Vol. III, 356 pp., \$5.00. Vol. IV, 766 pp. June 1950. \$10.00.
- The Public Library in the United States: The General Report of the Public Library Inquiry* by Robert D. Leigh (283 pp., August 1950, \$3.75); *The Library's Public* by Bernard Berelson (194 pp., \$3.00); *The Public Library in the Political Process* by Oliver Garceau (281 pp., \$3.75); *Government Publications for the Citizen* by James L. McCamy (153 pp., \$2.50); *The Book Industry* by William Miller (170 pp., \$2.75); *The Information Film* by Gloria Waldron (299 pp., \$3.75). Prepared under the auspices of the Public Library Inquiry Committee, the last-named volume in cooperation with the Twentieth Century Fund. New York: Columbia University Press, 1949.

PAMPHLETS

- Effective Use of Social Science Research in the Federal Services*. Prepared with the assistance of the Council. New York: Russell Sage Foundation, 1950. 47 pp. 50 cents.
- A Directory of Social Science Research Organizations in Universities and Colleges* by the Committee on Organization for Research. June 1950. 40 pp. Obtainable from the New York office of the Council.
- Memorandum on University Research Programs in the Field of Labor 1950* by the Committee on Labor Market Research. 70 pp. Photo-offset. Obtainable from the New York office of the Council.

SOCIAL SCIENCE RESEARCH COUNCIL

230 PARK AVENUE, NEW YORK 17, N. Y.

Incorporated in the State of Illinois, December 27, 1924, for the purpose of advancing research in the social sciences

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